

MINOR AND TRACE METAL ANALYSIS OF SOLVENT REFINED COALS BY FLAMELESS ATOMIC ABSORPTION. W. M. Coleman, P. Szabo, D. L. Wooton, H. C. Dorn, L. T. Taylor, Department of Chemistry, Virginia Polytechnic Institute and State University, Blacksburg, VA. 24061.

Several solvent refined coals differing in the raw feed coal used, their THF insoluble fraction, their THF soluble fraction and their sized separated fractions have been analyzed for twelve metallic elements (Mg, Al, K, Cr, Mn, Fe, Co, Ni, Cu, Zn, Cl, Pb) via flameless atomic absorption spectroscopy. Prior to analysis each sample was wet ashed with equal quantities of concentrated H_2SO_4 and 30% H_2O_2 . Matrix effects were compensated for by the method of standard additions and deuterium arc background correction. Metal analysis on a National Bureau of Standards Coal employing the same ashing and analysis scheme were determined and compared with certified values.